

Remarks:

The Examiner rejected claims 1, 3, 4, 6-12, 14, 15, and 19-21 under 35 USC 102(b) as being anticipated by Schwartz et al. (U.S. Patent 6,293,961). Applicant respectfully traverses this rejection.

Claim 1 has been amended to further show that the Schwartz device is totally unlike the claimed invention. The former is a suture locking device which takes the place of knots and which is not designed to change its size (diameter) upon interaction with bone. The former merely holds suture ends together while the latter holds soft tissue to bone. The latter is a suture anchor designed to interact with bone to change its shape to engage the bone. Given this distinction it is understandable why the Schwartz device need not and does not accommodate transverse suture. Initially it should be noted that what the Examiner identifies as aperture 30 is not in fact capable of receiving suture transversely to the longitudinal axis. Element 30 is a split gap or slit or split groove as clearly defined by Schwartz at column 4, line 54, column 5, line 18 and column 5, line 49 and has an outer circular profile to fit within locking ring 70. Split gap 30 must necessarily be axially aligned and is aligned with the axial cannulation 22 of the various Schwartz embodiments. The gap is designed to receive suture which extends axially, in alignment with axial cannulation 22. Consequently, the suture gripped by the Schwartz device is not and cannot be directed transversely. All of the Schwartz embodiments show the suture 40 extended along the axis of the device, coincident with the cannulation. In the embodiments of Schwartz Figures 1-8 and 10-13 the suture 40 is shown within a cannulation (bore) that is entirely surrounded by the cylindrical body of the Schwartz device except for the proximal and distal on-axis ends of the cannulation. Consequently, the suture cannot be placed transversely (perpendicular to the plane of the paper) to any Schwartz aperture. While Figure 9 does not

clearly show features laterally of the locking elements 36 and 37, the suture 40 is clearly shown extending along the axis of the device (left to right in Figure 9). Moreover, the locking ring 70 of the Schwartz device (Figures 5-8) is not only a separate piece from the main body of the device but it must be longitudinally moved (by an unseen instrument) relative to the main body of the device in order to effect any crimping action. Applicant's invention, on the other hand, is not only a single piece structure but the movable body portions are moved (by bone as it is pushed into the bone hole) transversely to the axis of the device in order to be placed into a locked position. For the Figure 9 device to be moved by insertion into a cylindrical bone hold, the diameter of the anchor must at some proximal point have a taper to a greater diameter than the bone hold. This is not true of Figure 9 (which starts out generally circular) or any other Schwartz embodiment other than Figures 1-4 which is explicitly shown to be a cylindrical body with a conical axial bore to wedge a bead to lock suture. There is nothing to suggest the shape of the device in Figures 1-4 could ever be anything other than a cylindrical device having no part thereof which could be moved by insertion into a bone hole. Furthermore, the Schwartz device requires suture to exit from the device at the distal tip of cannulation 22 while the claimed invention does not have this limitation. Applicant respectfully submits the claimed invention is patentably distinct from Schwartz et al. and requests the Examiner's reconsideration of this rejection.

Claim 15 has been amended. Support for claim 15 is found at page 8, lines 10-19 and page 6, lines 11-21. The action of inserting the anchor into the bone hole crimps the suture by deforming the anchor. This same action changes the outermost profile of the proximal end from elliptical or circular. No similar action or result is taught or suggested by Schwartz et al. All embodiments of Schwartz have proximal ends with either unvarying circular diameters or, in the

case of Figure 9, an ending, closed (locked) diameter smaller than the beginning, open (unlocked) diameter. None of the outer diameters of the Schwartz embodiments are intentionally deformed by interaction with bone such that no insertion into a body will cause the diameter to change. Some other unidentified instrument (column 4, line 67) is required to effect compression on the suture.

Schwartz shows a separate locking ring which compresses the “first and second rear portions 26, 28” (column 4 line 58). An insertion tool is used to engage the locking ring to pull/push it closed (column 4, line 67 to column 5, line 3; column 5, lines 31-33). There is no suggestion or disclosure in Schwartz that any component parts of the suture locking device could be moved by interaction with the bone tissue with which the device is intended to be used.

Applicant respectfully disagrees that Schwartz teaches varying shapes of a suture locking device sufficient to make the claimed invention obvious to one of ordinary skill in the art. The claimed invention is intended for insertion into a body tissue, preferably bone. While Schwartz makes a fleeting reference to using his device in bone (column 3, line 48) there is absolutely no teaching that the tissue interacts with any portion of the suture locking device to move it from a non-locked configuration to a locked configuration.

Applicant believes that the claims remaining in this case are in condition for allowance and respectfully requests that a timely Notice of Allowance be issued in this case. Examiner is encouraged to contact Applicant by telephone with any questions about the content of this amendment or to discuss allowable subject matter to facilitate placing this case in condition for allowance.